

CLAIMS

1. A block copolymer composition for photosensitive flexographic plates, which comprises:

at least one kind of block copolymer (a) selected from block copolymers represented by the following general formulae (a1) to (a3), and

a block copolymer (b) represented by the following general formula (b):



wherein A is a polymer block of an aromatic vinyl monomer, B is a polymer block of a conjugated diene monomer, and X is a residue of a coupling agent having two or more functional groups of at least one kind selected from an alkoxyl group, an ester group and an epoxy group in the general formulae a1, a2, a3 and b,

and which satisfies the following relationships:

$W_a = 50$ to 100% by weight,

$W_b = 0$ to 50% by weight, and

$$2.5 \leq (2 \times W_2 + 3 \times W_3 + 4 \times W_4) / (W_2 + W_3 + W_4) \leq 3.8$$

wherein W_a , W_2 , W_3 , W_4 , and W_b are the contents, in terms of % by weight, of (a), (a1), (a2), (a3), and (b) respectively.

2. The block copolymer composition for photosensitive flexographic plates according to claim 1, wherein the content of the aromatic vinyl monomer unit in the block copolymer composition is 5 to 25% by weight.

3. The block copolymer composition for photosensitive flexographic plates according to claim 1, wherein the weight-average molecular weight of the block polymer composition is 100,000 to 500,000.

4. The block copolymer composition for photosensitive flexographic plates according to claim 1, which comprises 0 to 20% by weight of the block copolymer (a1), 40 to 100% by weight of the block copolymer (a2), 0 to 50% by weight of the block copolymer (a3) and 0 to 50% by weight of the block copolymer (b).

5. The block copolymer composition for photosensitive flexographic plates according to claim 1, which comprises 55 to 95% by weight of the block copolymer (a) and 5 to 45% by weight of the block copolymer (b).

6. The block copolymer composition for photosensitive flexographic plates according to claim 5, which comprises 0 to 15% by weight of the block copolymer (a1), 40 to 95% by weight of the block copolymer (a2), 0 to 45% by weight of the block copolymer (a3) and 5 to 45% by weight of the block copolymer (b).

7. The block copolymer composition for photosensitive flexographic plates according to claim 1, which comprises 55 to 90% by weight of the block copolymer (a) and 10 to 45% by weight of the block copolymer (b).

8. The block copolymer composition for photosensitive flexographic plates according to claim 7, which comprises 0 to 10% by weight of the block copolymer (a1), 45 to 90% by weight of the block copolymer (a2), 0 to 45% by weight of the block copolymer (a3) and 10 to 45% by weight of the block copolymer (b).

9. A composition for photosensitive flexographic plates, which comprises the block copolymer composition for photosensitive flexographic plates according to any one of claims 1 to 8, an ethylenically unsaturated compound and a photopolymerization initiator.

10. A flexographic plate obtained by exposing, to light, the composition for photosensitive flexographic plates according to claim 9.